

IBM 1401 as an Auxiliary to IBM 700-7000 Series Systems

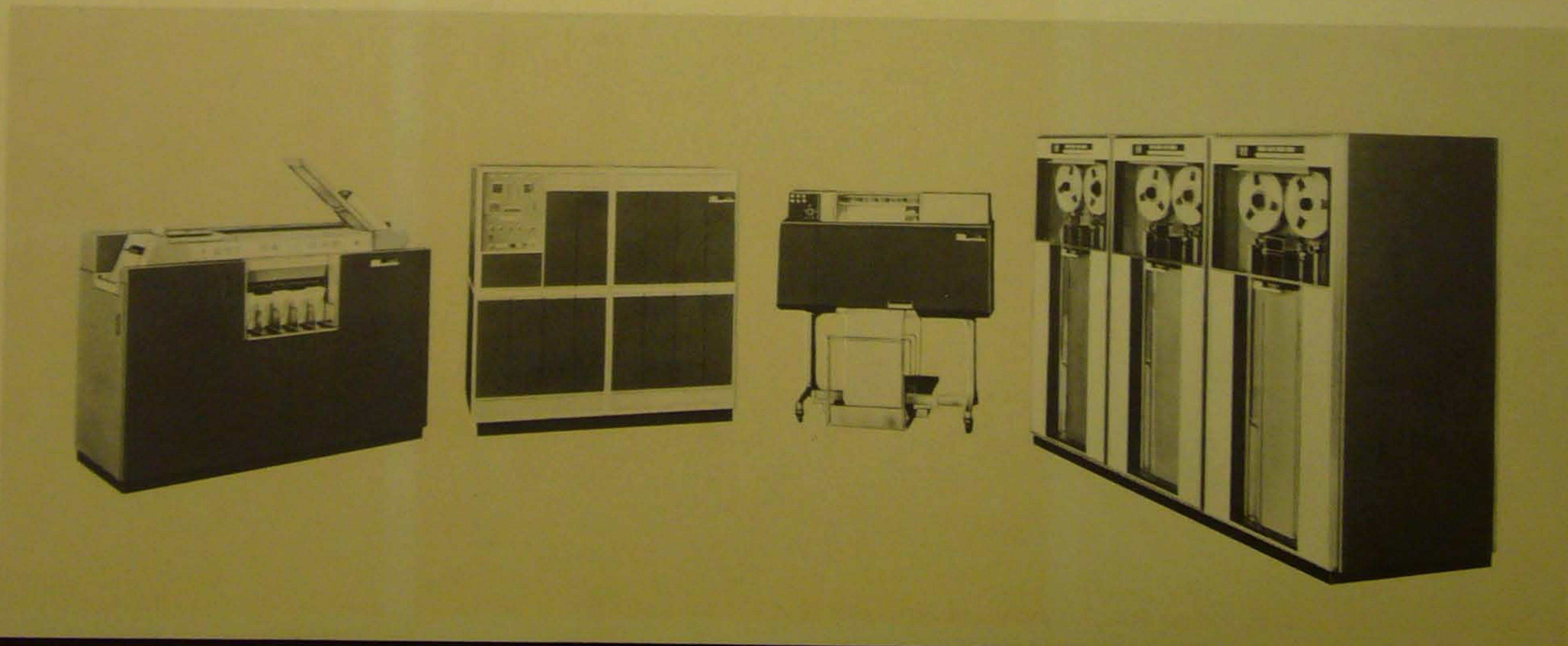


Here is a complete, fast and versatile data processing system with magnetic tape input-output, magnetic core storage and stored program operation . . . at surprisingly low cost!

As an auxiliary to large data processing systems, the 1401 has the ability to take over many auxiliary functions and operations, thus conserving the time of the large system and making possible its more efficient use.

As an independent data processing system, the 1401 provides many of the abilities of much larger systems.

The 1401 can prepare input tape for, and accept tape from, other IBM tape systems. This versatility makes it ideal for satellite installations in large companies with widely dispersed plants or offices, permitting tapes prepared on a 1401 in these remote locations to be fed into a large system at a central point.



IBM 1401 Data Processing System

Input

Magnetic Tape

- Up to 6 tape units may be attached.
- Speeds from 15,000 to over 60,000 characters per second may be specified.
- Files of varying record length may be merged for simultaneous processing.
- Rapid on-line sorting, merging and summarizing of data.
- Automatic internal checking and reduced handling of records make for accuracy.
- Provides inter-system communication with other IBM tape systems through interchangeability of tape.

Punched Cards

- Reads cards at up to 800 per minute.
- Read station has 3000-card capacity File Feed.
- Multiple 1000-card capacity, non-stop-unloading radial stackers permit segregation of cards under program control.
- Card reading is checked for accuracy.

Processing

- Magnetic core storage—completely alphameric.
- Stored program.
- Completely transistorized, high-speed arithmetical and logical circuits.
- Extra processing power can be added through optional features.
- Advanced logic—simple programming in fewer steps.
- Accepts data and instructions of variable length, permitting full use of storage positions.
- Number and size of totals is limited only by number of available storage positions.
- All data flow is parity checked.
- Powerful print editing ability.
- Fast internal processing speeds: Add two 8-position fields: 0.31 milliseconds.
Multiply a 6-position field by a 4-position field: 15 milliseconds on a standard model; 2.4 milliseconds (average) using Direct Multiply-Divide option.
Compare two 6-position fields: 0.24 milliseconds.

Output

Magnetic Tape

- Processing results can be recorded on tape and also punched into cards or printed, or both.
- IBM 729 II or IV Magnetic Tape Units provide high-speed, large-capacity output.
- Any one of the following speeds may be specified:
729 II—15,000 characters per second or 41,667 characters per second
729 IV—22,500 characters per second or 62,500 characters per second

Printed Reports

- Prints up to 600 lines per minute.
- Ultra-high speed skipping:
8 lines or less at 33 inches per second,
9 lines or more at 75 inches per second.
- 132 alphameric printing positions per line.
- 48 characters per print position.
- Printing and carriage under stored program control.
- Printer operation is electronically checked.

Punched Cards

- Summary punches up to 250 cards per minute.
- 1000-card capacity, non-stop-unloading radial stackers permit continuous operation (up to 3 available).
- Punching is checked for accuracy.

Typical Benefits to 700-7000 Series Users

Conserve large system time for those runs which really require its great processing abilities! The economical 1401 can readily take over such auxiliary data processing operations as—

Updating of Tape File Records from transactions or change cards, producing a report, punched cards and output tape.

Searching of Tape File Records, with results recorded on tape, cards or printed reports.

Tape-to-Tape Operations involving data editing, sorting, collating, grouping or ungrouping, changes, etc.

The 1401's units serve as economical replacements for the readers, punches, printers and tape units commonly used with 700-7000 Series systems for auxiliary and conversion operations. The speed and abilities of these units make the 1401 particularly adapted to such conversion operations as—

Card-to-Tape, with off-line audit, control and edit of input data at up to 800 cards per minute.

Tape-to-Card, at up to 250 cards per minute.

Tape-to-Printer, at up to 600 lines per minute.

In both these operations, the powerful print editing ability of the 1401 eliminates the need for writing "print pattern" or "punch pattern" tapes. Under stored program control, the 1401 accepts data from raw tape, edits, rearranges and prints or punches it, or both.

Available Programs

The following programs and subroutines will be available for use with the 1401:

- Load Cards Programs
- Clear Storage Program
- Print Dump Program
- Reloadable Punch Dump Program
- Multiply Subroutine
- Divide Subroutine
- Symbolic Programming System

IBM 1401 Data Processing Systems are available through lease, purchase or purchase-lease option. For further details, contact the IBM branch office in your community or

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